

**REMARKS:**

These remarks are in response to the non-final Office Action mailed May 24, 2006, in which claims 12-28 and 30 are pending. Claims 1-11 and 29 have previously been withdrawn from consideration. Claims 12-28 and 30 stand rejected.

In the Specification, paragraphs [0028] and [0029] have been amended to replace five occurrences of - -cuffing- - with "cutting." This was an inadvertent and unintentional typographical error and no new matter was added in making this amendment.

In the Claims, claim 12 has been amended to recite that the substrate has a first outer surface and a second, generally parallel, outer surface, the first and second outer surfaces defining a region therebetween. Claim 12 has further been amended to add a recitation that the cutting edge patterns are located outside the region bounded by the parallel first and second outer surfaces of the substrate. Support for this amendment can be found in at least paragraph [0025] wherein the substrate is defined as a strip which inherently has first and second outer surfaces and Figs 3 and 4 which depict the first and second outer surfaces of the substrate being generally parallel. Claims 13, 22, 26 and 30 have been cancelled. Claims 23 and 25 have been amended to direct their dependency to claim 12 from now-cancelled claim 22. No new matter was added in making these amendments.

The Information Disclosure Statement filed on January 10, 2004 allegedly failed to comply with 37 CFR 1.98(a)(2). A legible copy of each foreign patent cited therein is enclosed with the present response. The Applicant respectfully requests consideration of the information referred to in the foreign patents.

The Examiner objected to the drawings under 37 CFR 1.83(a) for allegedly failing show the sharpness of each cutting edge varying or the sharpness of the first and second sides of each cutting edge pattern being greater than the sharpness of the crest or trough.

As stated above, claims 22 and 26 have been canceled. The Applicant respectfully requests the present objection be withdrawn.

The Examiner rejected claims 12-26 and 30 under 35 U.S.C. 103(a) as being allegedly unpatentable over Hastings (US Patent number 3,654,701, hereinafter referred to as the "'701 patent"), in view of Goel et al. (US Patent number 5,795,648, hereinafter referred to as the "'648 patent"), in further view of Mehregany (US Patent number 5,579,583, hereinafter referred to as the "'583 patent").

In making the rejection the Examiner alleges that the '701 patent teaches all of the elements of the current invention as stated above except a coating layer. The Examiner further alleges that the '648 patent teaches a razor blade with a coating and [t]he substrate is substantially offset from the cutting edge. In the present application claim 12 has been amended as previously stated.

The '701 patent is directed to "an improved safety razor blade having a cutting edge in the form of a continuous series of substantially sinusoidal microwaves." The cutting edge of the device of the '701 patent is formed directly on the substrate and is thus within the region defined by the outer surfaces of the substrate. This is depicted in Fig. 2 of the '701 patent. The '701 patent is silent in regard to any coatings on the cutting edge or substrate.

The '648 patent is directed to "[a] method for preserving the precision-edges of a precision-edged substrate by applying to the substrate a corrosion resistant coating." The coating of the '648 patent is applied to a substrate already having a precision-edge. Thus the precision edge is inherently within the region defined by the outer surfaces of the substrate. This is depicted in Figs. 5 and 6 therein.

The '583 patent is directed to "[a] micromachined blade suitable for medical applications has an edge which is free of imperfections common in mechanically sharpened steel blades." At Col 3, lines 44-57 the '583 patent discloses:

The silicon wafer is cut from a single crystal and polished such that the top and bottom surfaces of the wafer, which will form the top surface 303 of the blade and the bottom surface (not shown) of the blade have crystallographic orientation  $\langle 100 \rangle$ . A flat surface 301 corresponding to a  $\langle 111 \rangle$  crystallographic plane forms an acute angle with the bottom  $\langle 100 \rangle$  plane of the wafer. Thus, a sharp cutting edge 201 is formed at the intersection of flat surface 301 and the bottom surface of the wafer. The front surface 305 and back surface (not shown) of the blade may also be formed coincident with crystallographic planes of the silicon wafer. The corner, or sharp tip 307 formed at each end of sharp cutting edge 201 results from the intersection of three substantially flat, planar surfaces.

Thus the cutting edge of the blade of the '583 patent is both substantially straight, as it is formed from the intersection of two flat planar surfaces (301 and  $\langle 100 \rangle$  therein), and the cutting edge is within the region defined by the outer surfaces of the substrate.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the

knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The Applicant contends that the '701 patent, the '648 patent and the '583 patent, alone or in combination fail to disclose, teach or suggest "cutting edge patterns are located outside the region bounded by the parallel first and second outer surfaces of the substrate" as recited in part in claim 12 of the present application. The Applicant therefore contends that claim 12 is allowable over the '701 patent, the '648 patent and the '583 patent.

Dependent claims, by definition, further define the subject matter of the independent claims from which they depend. Because claims 14-25 depend from claim 12, claims 14-25 add recitations that further define the subject matter of independent claim 12. As claim 12 is believed to be allowable, claims 14-25 are therefore also believed to be allowable. The Applicants therefore respectfully requested the Examiner to reconsider and withdraw the rejection of claims 12-25 under 35 U.S.C. 103(a) as being obvious over the '701 patent in view of the '648 patent and in further view of the '583 patent. The rejection of claims 13, 22, 26 and 30 is moot in light of the cancellation of these claims.

The Examiner rejected claim 27 under 35 U.S.C. 103(a) as being unpatentable over the modified device of the '701 patent in view of Balke (US Patent number 6,382,068, hereinafter referred to as the "'068 patent").

In making the rejection the Examiner alleges "[t]he modified device of (the '701 patent) teaches all of the elements of the current invention as stated above except that the cutting edge pattern containing a plurality of micropatterns." The Examiner alleges that "(the '068 patent) teaches providing a micropattern of finer cutting teeth on the cutting teeth of a cutting edge of a blade."

The disclosure of the '068 patent is directed to a strip-shaped or reciprocating knife. In use, the blade of the '068 patent moves in a direction transverse to the direction of cutting, i.e. in a "sawing" motion. This can be a single continuous motion (the strip-shaped knife) or alternating motion in two opposed directions (the reciprocating knife). The razor blade of the present application, in common with many known razor blades, is intended for use having a motion generally parallel to the direction of cutting. The Applicant contends that the disclosure and teachings of the '068 patent fail to correct the deficiencies of the '701 patent,

the '648 patent and the '583 patent as these apply to claim 12 for at least the reasons previously stated. The Applicant further contends that one having ordinary skill in the art of the present application would not be motivated to combine the teachings of the '068 patent with the modified device of the '701 patent as the blade of the '068 patent is intended for use in a manner entirely different to that of the razor blade of the present application.

For at least the reasons stated above the Applicant contends that claim 12 is allowable over the modified device of the '701 patent. Claim 27, being dependent on claim 12 adds recitations that further define the subject matter of independent claim 12. As claim 12 is believed to be allowable, claim 27 is therefore believed to be allowable. The Applicants therefore respectfully requests the Examiner to reconsider and withdraw the rejection of claim 27 under 35 U.S.C. 103(a) as being obvious over the modified device of the '701 patent in view of the '068 patent.

The Examiner rejected claim 28 under 35 U.S.C. 103(a) as being unpatentable over the modified device of the '701 patent in view of Trankiem (US Patent number 5,101,565, hereinafter referred to as the "'565 patent").

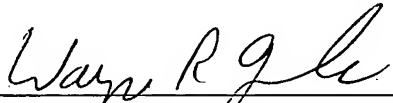
The disclosure of the '565 patent is directed to an improved razor blade and method of production. The cutting edge regions of the blade of the '565 patent include a solid adherent coating which is the residue of a heated mixture of a fluorocarbon polymer and a silane. The Applicant contends that the disclosure and teachings of the '565 patent fail to correct the deficiencies of the '701 patent, the '648 patent and the '583 patent as these apply to claim 12 for at least the reasons previously stated. Claim 28, being dependent on claim 12 adds recitations that further define the subject matter of independent claim 12. As claim 12 is believed to be allowable, claim 28 is therefore believed to be allowable. The Applicants therefore respectfully requested the Examiner to reconsider and withdraw the rejection of claim 28 under 35 U.S.C. 103(a) as being obvious over the modified device of the '701 patent in view of the '565 patent.

**Summary:**

In summary, the Applicants believe that the foregoing remarks are fully responsive to the Office Action and that the claims herein are allowable. The Applicants therefore respectfully request that the rejection be withdrawn and the present application be passed onto allowance.

The Applicants believe that no additional fees are due with the filing of the present response, however, if any additional fees are due, please charge Deposit Account Deposit Account No 503342 maintained by the Attorneys of the Applicants.

Respectfully submitted,

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